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RESEARCH
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APPLIED FORESTRY NOTES

NORTHERN ROCKY MOUNTAIN
FOREST AND RANGE EXPERIMENT STATION
AND
COOPERATING AGENCIES *

No. 70 July 1935 Missoula, Montana.

PROGRESS REPORT ON THE FOREST RESOURCE SURVEY

By G. M. DeJarnette, Associate Forester

Purpose

The purpose of the survey is to obtain and compile, in such manner that it will be readily available for use, all of the pertinent data on the timber resources of Region One.

The final report will include:

1. An inventory of all timber resources.
2. A classification of all timberland as to productivity and accessibility.
3. An estimate of the annual drain on timber resources by cutting, fire, insects, and other losses.
4. An estimate of the commodity requirements for timber from the Region.
5. The annual increment of wood and forest products in the Region.
6. Other pertinent facts regarding the growth, movement and stability of the timber industry.

History

The National Forest Survey was brought into being by the McSweeney-McNary Forest Research Act of 1928.

Work was started in this Region late in 1931, with M. I. Bradner, Chief of the Office of Forest Products, Northern Rocky Mountain Forest and Range Experiment Station, in charge, and G. M. DeJarnette, assistant.

Conferences with the Regional Office, other public agencies, and representatives of the timber industry resulted in the laying of preliminary plans and the formulation of general policies. The "compilation method" was decided to be the most desirable one for Region One. Under this method, all available information from every source is collected, sorted, checked, and corrected to bring it to a common standard of accuracy. The areas for which no information are obtainable are covered by field mapping and cruising. Cruise information is available on nearly all of the mature merchantable timber of the Region. Very gratifying cooperation by private timber owners and other public agencies has made this information available to the survey. The field work, therefore, is largely confined to the areas of cutover and burned-over lands, and the poorer grades of less accessible mature timber, all of which can be covered with a minimum of field expense.

Collection of cruise data was started in January 1932. Field work on a small scale was initiated in May 1932. During that season, three men worked on the mapping of blank areas and two men on the checking of collected information. Since that time the work has progressed on an increasing scale, both in the field and office. In 1933, a total of six field mappers was employed for part of the season. During the summer of 1934, an average of 30 men mapped in the field and about the same number have been employed on office compilation since the end of the 1934 field season.

Progress

The first unit set up to be worked in the Region was that portion of the "Inland Empire" included in Montana, west of the Continental Divide; Idaho, north of the Salmon River, and Washington, in Spokane, Stevens and Pend Oreille Counties. Within this unit there are approximately 26,000,000 acres of land to be covered by the survey.

On the accompanying tabulation, under the heading "Percentage of Job Completed," are listed the four major divisions of the work of the inventory phase of the survey. "Collection" represents the work of assembling and sorting the cruise information available from the various sources; "Field Mapping" is the work of covering areas for which no satisfactory information is obtainable, and supplying missing data, such as age and site, on areas of mature timber where volume data alone have been obtained; "Adjustment Cruising" consists of checking the collected cruise estimates in the field and adjusting them to a common standard; "Office Compilation" is the

job of welding the mass of information obtained by collection and field work into a complete summary of volume and type area data for the entire acreage of Forest land within the unit; the "Report" will be a brief economic description of the history and prospects of the timber industry within the counties involved.

The percentages as shown give a fair picture of progress, but they do not tell the whole story. Included in the time and money which have been spent on the project thus far is a large amount for preliminary plans, training of personnel, development of methods, and the purchase of cars and field equipment sufficient for an organization of thirty men. The project is now in such shape that it can realize on this investment, especially if the present organization can be held together. Neither do the progress percentages reveal the fact that the most difficult part of the unit has been completed, with respect to the field mapping and compilation. The area covered includes the most broken type conditions as well as some of the most valuable timberland in the Region. The latter class of land naturally deserves more careful consideration than the rough back-country areas included in the National Forests. On a large part of the back country, there is already sufficiently accurate coverage and very little, if any, adjustment to Forest survey standards is needed.

On the accompanying map, the total area to be covered is outlined, and the area on which field work has been completed is shown in colors according to the year worked.

Cover maps for all of the area which has been covered to date are in final form. Photostat negatives have been made of each township. From these, either 1-inch or 2-inch-to-the-mile reproductions may be made. The plain positive prints show timber and other cover data by lines and type symbols. Colored maps show the above in color, in addition to the symbols. These maps are available at cost, for distribution to those having use for them in township units, in either size, upon order. Considerable use is being made of the 2-inch type maps by the A.A.A., and other agencies. The information, while necessarily of an extensive nature, is filling a need for a cover map of a degree of accuracy which will permit its use for extensive planning or land transactions involving large tracts of low-value land. It is not designed for use where detailed information is desired on small tracts or where high values are involved. Work is also going forward on 1-inch-to-the-mile black-line prints, which will be published in units of about 40 townships each and will show the cover types in more generalized form. These maps will give a good picture of the general cover types of the Region.

It is expected that some preliminary statistical data can soon be released. Compilation work has progressed to the point of complete type acreage figures for two counties. Total volume figures are complete in one county - Benewah, in Idaho. These will be released by ownership classes, that is: "Large Private," "Small Private," "State," "County," "Federal," etc. No releases are to be made showing individual ownerships.

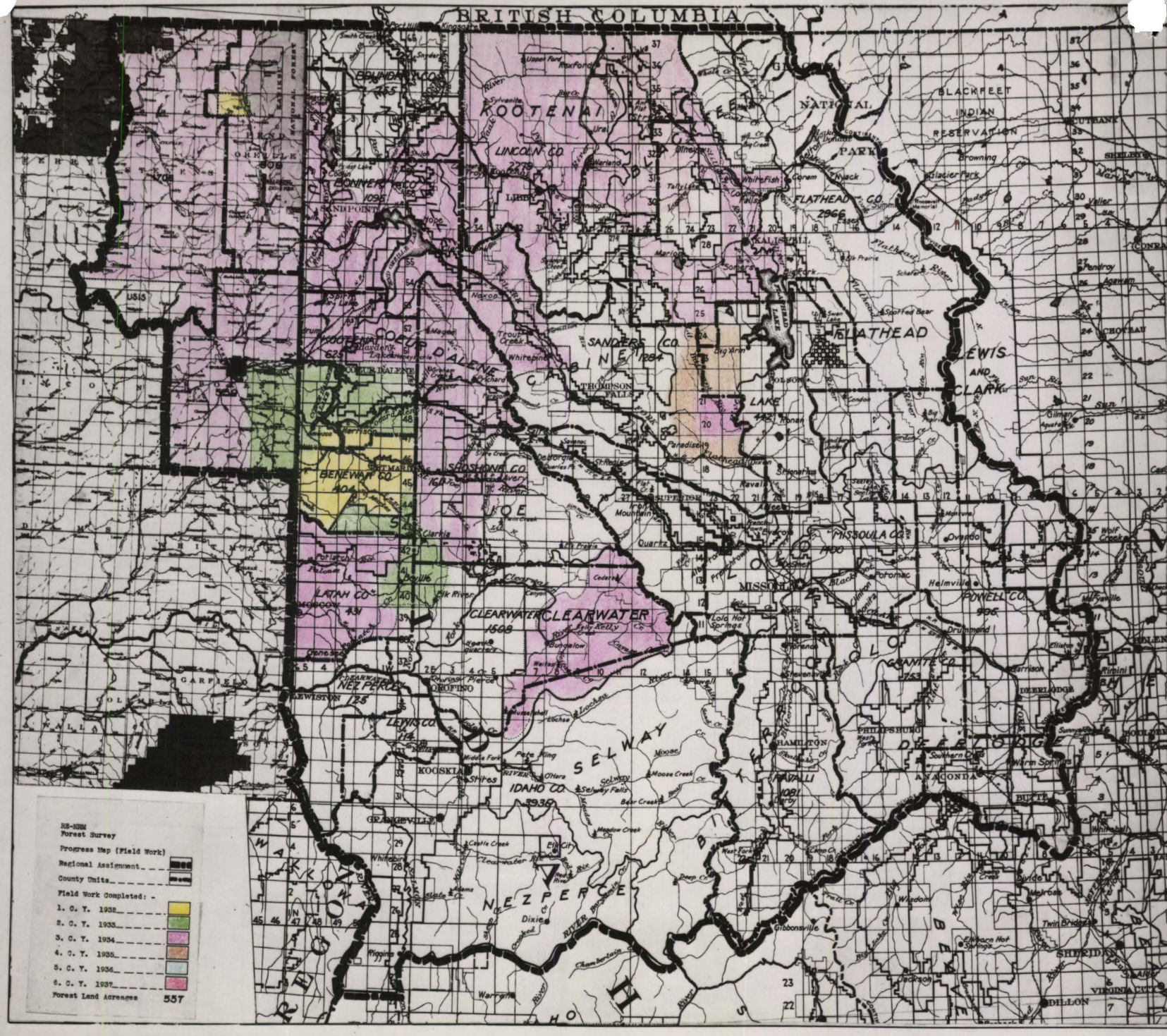
Progress on the survey has been impeded, except in the season of 1934, by undependable and inadequate financing. The present situation is such that it is impossible to make worthy plans; in fact, no field work has been done as yet this season and, unless some way is found to finance the project by July 1, an almost complete cessation of activities will be necessitated.

NRM
Forest Survey
Inland Empire

PROGRESS REPORT

As of: 7/1/35

UNIT	Est. Area Forest Land in M. Acres			Percentage of Job Completed				Report
	Inside N. Forests	Outside N. Forests	Total	Collection	Field Mapping	Adj. Cruising	Office Compilation	
IDAHO								
Benewah	16	388	404	100%	100%	100%	90%	
Bonner	446	649	1,095	100%	85%		60%	
Boundary	417	338	755	95%	10%			
Clearwater	641	867	1,508	100%	35%		25%	
Idaho	3,490	445	3,935	90%	1%			
Kootenai	202	423	625	100%	100%		90%	
Latah	31	400	431	100%	97%		90%	
Lewis		114	114	100%				
Nezperce		125	125	100%				
Shoshone	977	634	1,611	100%	59%	100%	40%	
TOTAL, IDAHO	6,220	4,383	10,603	97%	37%	18%	29%	
MONTANA								
Deerlodge	60	15	75	90%				
Flathead	1,843	1,123	2,966	100%	30%		15%	
Granite	620	133	753	75%				
Lake		442	442	90%	25%			
Lewis & Clark	140	80	220	90%				
Lincoln	1,655	624	2,279	100%	85%		50%	
Mineral	576	164	740	75%				
Missoula	567	833	1,400	85%				
Powell	515	390	905	95%				
Ravalli	928	153	1,081	80%				
Sanders	822	462	1,284	80%	25%		15%	
TOTAL, MONTANA	7,726	4,419	12,145	95%	26%		15%	
WASHINGTON								
Pend Oreille	267	642	909	100%	100%		90%	
Spokane		559	559	100%	100%	100%	95%	
Stevens	64	1,642	1,706	100%	100%		90%	
TOTAL, WASHINGTON	331	2,843	3,174	100%	100%	18%	91%	
TOTAL, INLAND EMPIRE	14,277	11,645	25,922	95%	40%	10%	29%	


BRITISH COLUMBIA
KOOTENAI
LINCOLN CO.
2279
BONNER CO.
1095
SANDPOINT
BOUNDARY CO.
465
SANDERS CO.
1284
THOMPSON FALLS
FLATHEAD
2966
KALISPELL
LAKE
442
LEWIS AND CLARK
BLACKFEET NATIONAL INDIAN RESERVATION
PARK
COEUR D'ALENE
628
BENEWAH CO.
404
SHOSHONE CO.
1610
LATAH CO.
431
MOSCOW
CLEARWATER
1508
NEZ PERCE
125
LEWISTON
LEWIS CO.
114
IDAHO CO.
2939
MISSOULA CO.
1400
MISSOULA
POWELL CO.
906
GRANITE CO.
753
DEERLODGE
ANACONDA
BUTTE
SHERIDAN
DILLON
VIRGINIA CITY
RS-NRM
Forest Survey
Progress Map (Field Work)
Regional Assignment
County Units
Field Work Completed: -
1. C. Y. 1932
2. C. Y. 1933
3. C. Y. 1934
4. C. Y. 1935
5. C. Y. 1936
6. C. Y. 1937
Forest Land Acreages 557